



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,814	08/13/2001	Klaus Wilbuer	SWR-0055	4734
23413	7590	11/01/2005	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			BERNATZ, KEVIN M	
		ART UNIT		PAPER NUMBER
				1773

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/856,814	WILBUER ET AL.
	Examiner	Art Unit
	Kevin M. Bernatz	1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,5,8,10-22,26,33-36 and 39-46 is/are pending in the application.
- 4a) Of the above claim(s) 11,13,15-22,26,33-36 and 39-44 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,5,8,10,12,14,45 and 46 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 13 August 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Response to Amendment

1. Amendments to claim 1, filed on June 23, 2005, have been entered in the above-identified application.
2. Applicants petition to re-open prosecution has been granted per the decision of August 22, 2005.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Examiner's Comments

4. Regarding the limitation(s) "several layer-like areas" in claim 1, the Examiner has given the term(s) the broadest reasonable interpretation(s) consistent with the written description in applicants' specification as it would be interpreted by one of ordinary skill in the art. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); *In re Donaldson Co., Inc.*, 16 F.3d 1190, 1192-95, 29 USPQ2d 1845, 1848-50 (Fed. Cir. 1994). See MPEP 2111. Specifically, the Examiner notes that a "layer-like" area is simply a portion of the film. The Examiner further notes that the present claims do not require that these "layer-like" areas have a specific dimension, nor whether the plurality of "layer-like" areas can or cannot be connected to each other. I.e. the present claim language reads on a single, uniformly cast film, since the film can be taken to possess a plurality of "layer-like" areas as shown in Figure 1 below.

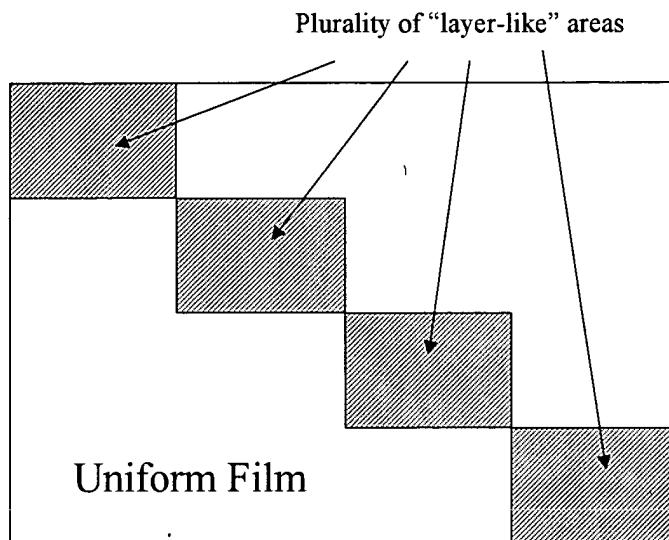


Figure I: illustration of how a uniform film reads on the claimed limitations

Request for Continued Examination

5. The Request for Continued Examination (RCE) under 37 CFR 1.53 (d) filed on June 23, 2005 is acceptable and a RCE has been established. An action on the RCE follows.

Claim Rejections - 35 USC § 102

6. Claims 1, 5, 8, 14 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Yokoyama et al. (U.S. Patent No. 4,880,687) for the reasons of record as set forth in Paragraph No.'s 5 – 10 of the Office Action mailed on November 11, 2005.

7. Claims 1, 5, 8, 10, 12, 14, 45 and 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. (U.S. Patent No. 5,480,685) for the reasons of record as set forth in Paragraph No.'s 11 – 21 of the Office Action mailed on November 11, 2005.

8. Claims 1, 8, 10, 14, 45 and 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Tannenbaum (WO 92/010309) for the reasons of record as set forth in Paragraph No.'s 22 - 31 of the Office Action mailed on November 11, 2005.

9. Claims 1, 5, 8, 14, 45 and 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Lusk (U.S. Patent No. 4,578,293).

Regarding claim 1, Lusk discloses a coating made of a film formed on the basis of at least one polymer material that includes at least one property-changing component embedded in a matrix of the polymer material (*col. 2, lines 41 – 45*), the film comprising several layer-like areas (*col. 1, lines 53 – 59 – and see Paragraph 4, above*), at least one of the layer-like areas includes the property-changing component (*all of them do*), and a concentration of the property-changing component embedded in one of the layer-like areas varies in a direction of a thickness of one of the layer-like areas (*col. 1, lines 21 – 31; col. 2, lines 33 – 35; and col. 2, line 57 bridging col. 3, line 3*), wherein the coating is disposed on a workpiece (*col. 1, lines 53 – 59*), wherein the property-changing component changes at least one surface property from applicants' claimed Markush group (*col. 1, lines 6 – 39 and col. 1, line 64 bridging col. 2, line 28 – i.e. the*

Examiner deems that the disclosed additives will inherently impact the following properties: sealing capacity, stretch resistance, impact resistance and ability to be cleaned or recycled, since the additives will impact the rate of degradation of the film, which is deemed to directly impact the above properties since a degraded film loses structural integrity, resulting in rupture/losing sealing capacity/capability, stretching, and reduced ability to resist impacts. The fact that additional additives that are designed to leach out have been added will directly impact how easy the material can be cleaned and special recycling needs may be required to remove the chemicals).

Regarding claims 5 and 14, Lusk discloses the claimed limitations per the discussion in Paragraph 4 above (i.e. the present claims do not require the "layer-like" areas to be on a separate plane or to otherwise be distinct from each other).

Regarding claim 8, Lusk discloses materials meeting applicants' claimed limitations (col. 1, line 53 bridging col. 2, line 28).

Regarding claim 45, the limitation(s) "the workpiece is suitable for ... automobile industries" is (an) intended use limitation(s) and is not further limiting in so far as the structure of the product is concerned. Note that "in apparatus, article, and composition claims, intended use must result in a **structural difference** between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. **If the prior art structure is capable of performing the intended use, then it meets the claim.** In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art." [emphasis added] *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967); *In re Otto*, 312 F.2d 937, 938,

136 USPQ 458, 459 (CCPA 1963). See MPEP § 2111.02. In the instant case, Lusk teaches intended uses meeting applicants' claimed limitations (*col. 1, lines 6 – 59*).

Regarding claim 46, Lusk discloses property-changing components meeting applicants' claimed Markush limitations (*col. 1, line 64 bridging col. 2, line 28*).

10. Claims 1, 5, 8, 14, 45 and 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Nohr et al. (U.S. Patent No. 5,120,888).

Regarding claim 1, Nohr et al. disclose a coating made of a film formed on the basis of at least one polymer material that includes at least one property-changing component embedded in a matrix of the polymer material (*Figure 7; col. 8, lines 8 – 37; and examples 131 – 176*), the film comprising several layer-like areas (*Figure 7; col. 11, line 60 bridging col. 12, line 2; examples 131 – 176, 440, 441; and see Paragraph 4, above*), at least one of the layer-like areas includes the property-changing component (*ibid*), and a concentration of the property-changing component embedded in one of the layer-like areas varies in a direction of a thickness of one of the layer-like areas (*col. 10, line 39 bridging col. 11, line 7; and col. 31, lines 41 – 53*), wherein the coating is disposed on a workpiece (*examples 131 – 176*), wherein the property-changing component changes at least one surface property from applicants' claimed Markush group (*col. 8, lines 8 – 37; col. 20, line 44 bridging col. 21, line 3; and examples 131 – 176*).

Regarding claims 5 and 14, Nohr et al. disclose the claimed limitations per the discussion in Paragraph 4 above (i.e. the present claims do not require the "layer-like"

areas to be on a separate plane or to otherwise be distinct from each other) (see also *Figure 7; col. 11, line 60 bridging col. 12, line 2; and examples 131 – 176, 440, 441*)

Regarding claim 8, Nohr et al. disclose materials meeting applicants' claimed limitations (*col. 8, lines 8 - 37*).

Regarding claim 45, the limitation(s) "the workpiece is suitable for ... automobile industries" is (an) intended use limitation(s) and is not further limiting in so far as the structure of the product is concerned. Note that "in apparatus, article, and composition claims, intended use must result in a **structural difference** between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. **If the prior art structure is capable of performing the intended use, then it meets the claim.** In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art." [emphasis added] *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967); *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963). See MPEP § 2111.02. In the instant case, Nohr et al. teach intended uses meeting applicants' claimed limitations (*col. 2, lines 16 – 23 and col. 11, line 61 bridging col. 12, line 2*).

Regarding claim 46, Nohr et al. disclose property-changing components meeting applicants' claimed Markush limitations (*col. 8, line 8 bridging col. 12, line 2*).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nohr et al. as applied above.

Nohr et al. is relied upon as described above.

Regarding claims 10 and 12, Nohr et al. fail to explicitly disclose forming a film wherein individual "layer-like" areas are different in terms of the embedded additive and/or the polymer material used or wherein the surface of the film possesses different planes. The Examiner must note that the present claims do not require that each and every individual layer-like area possess a property-changing component or a concentration gradient – only "at least one" of these layer like areas need possess the above. Hence, the Examiner notes that the additional "layer-like" areas claimed in claims 10 and 12 are not required to possess a property-changing component or a concentration gradient.

Bearing the above in mind, the Examiner notes that articles, including diapers and feminine hygiene products, which are some of the intended uses of the Noah et al. invention (*col. 11, line 61 bridging col. 12, line 2*), are known in the art to possess surfaces having various non-uniformities, including surface areas on different planes. The Examiner deems that forming films having individual "layer-like areas" possessing

different additives and/or polymers is clearly within the knowledge of one of ordinary skill in the art, given that the present claims do not restrict these relative areas in any non-nominal physical manner (i.e. size, relative location, etc). *In re Dailey*, 149 USPQ 47, 50 (CCPA 1966); *Glue Co. v. Upton*, 97 US 3,24 (USSC 1878); *In re Rose*, 105 USPQ 237 (CCPA 1955); *In re Reese*, 129 USPQ 402 (CCPA 1961); *In re Seid*, 73 USPQ 431 (CCPA 1947).

It would therefore have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device of Nohr et al. to include a film possessing at least one individual layer-like area different in terms of the embedded additive and/or the polymer material used and/or lying in different planes, since forming surfaces of different materials and/or on different planes is knowledge that is clearly possessed by one of ordinary skill in the art.

Response to Arguments

13. The rejection of claims 1, 5, 8, 14 and 45 under 35 U.S.C § 102(b) –

Yokoyama et al.

Applicant(s) argue(s) that it is improper to "equate durability with impact resistance and request that the Examiner provide a technical basis for this assertion" since applicants' argue that Yokoyama et al. fail to disclose a property-changing component meeting the claimed limitations (*page 8 of response*). The examiner respectfully disagrees.

The Examiner notes that it is well understood in magnetic recording technology that the durability or mechanical wear characteristics of a magnetic disk is related to two critical failure parameters – the stiction associated with the magnetic head element “sticking” to the disk surface and impacts of the magnetic head element with the disk surface as the disk rotates in close proximity to each other (typically called “head crash”). The durability of the disk is directly related to the disks ability to avoid stiction and to (a) minimize the occurrence of head crashes and (b) minimize the damage caused when head crash does occur. See Schmitz (U.S. Patent No. 5,034,837) for additional information (col. 1, lines 24 – 57).

14. The rejection of claims 1, 5, 8, 10, 12, 14, 45 and 46 under 35 U.S.C § 102(b) – Suzuki et al.

Applicant(s) argue(s) that there “is no teaching or suggestion that the metal particles of Suzuki will change any of the foregoing properties” and request that the Examiner provide a technical basis for this assertion since applicants argue that Suzuki et al. fail to teach the claimed property-changing limitation. The examiner respectfully disagrees.

The Examiner notes that the present rejection of record provides clear technical reasoning why these limitations are met (*Paragraph 14 of the Office Action mailed November 5, 2004*). Most notably, the particles are substantially identical to particles explicitly disclosed by applicants as meeting the claimed limitations and applicants have presented no evidence that the prior art product would fail to meet the extremely broad

claimed Markush limitation. While broad claims are clearly acceptable, the broader the scope of a claim the more likely a piece of prior art will read on the claims. The language of "changes at least one surface property of the group consisting of sealing capacity, stretch resistance, impact resistance, compatibility with lubricants, dyes and hydraulic media or the ability to be cleaned, hardened or recycled" doesn't place any limitation on the *degree* of change (so even a change of 0.000000000001% could be deemed to read on the claim) or whether the performance is changed in a good or bad way (the claim merely requires a *change*, not a change in a certain direction). As such, the Examiner deems that it is highly likely that almost any mixture of an additive with a polymer known to man will read on the presently claimed Markush limitation.

15. The rejection of claims 1, 8, 10, 14, 45 and 46 under 35 U.S.C § 102(b) –

Tannenbaum

Applicants have presented no arguments directed to the Tannenbaum reference.

Conclusion

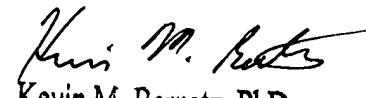
16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Phillips et al. (U.S. Patent No. 6,406,783 B1) and Kellenberger et al. (U.S. Patent No. 4,699,823) teach materials having concentration gradients of components that effect the surface properties of the component and are deemed to be sufficiently close to the claimed invention to either be applicable as 102 and/or 103-type art. No rejections using these references have been currently made since the above

rejections are (1) deemed the closest prior art and (2) any amendment/argument to overcome the pending rejections are reasonable expected to overcome any rejection predicated on the Phillips et al. or Kellenberger et al. references. However, to expedite prosecution, applicants are encouraged to review the above two references to insure that the claimed invention is patentably distinct from the prior art.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Bernatz whose telephone number is (571) 272-1505. The examiner can normally be reached on M-F, 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kevin M. Bernatz, PhD
Primary Examiner

KMB
October 26, 2005